REMARKS

The Office Action rejected claims 1 and 3-10 under Section 102(e) as anticipated by Jao (USPN 6,283,761). Claims 2-24 were rejected under Section 103(a) as unpatentable over Jao in view of Andreiko et al. (USPN 5,683,243). As detailed below, Applicants respectfully traverse the rejections and submit that all claims are in condition for allowance.

The Section 102(e) Rejection

A Section 102 Rejection requires that each and every element of each claim be present in Jao. Jao describes apparatus and methods for providing healthcare information. The apparatus comprises a processor for processing "symptom information" and/or "condition information" of a patient in view of known healthcare information, healthcare theories, healthcare principles, and/or healthcare research. The processor generates a diagnostic report which contains information regarding a diagnosis or possible diagnosis for the symptom information and/or condition information. In particular, Jao teaches that the processor can generate a diagnostic report containing a list of possible diagnoses and transmit a diagnostic report to a computer and a communication device associated with a healthcare provider or other recipient. The processor can also generate a claim form for submission to a healthcare payer and/or a healthcare insurer.

Jao does not show dental aspects such as the transmission of 3D model of a patient's teeth so that the treating professionals can manipulate the 3D model. At best, Jao shows a passive transmission of scanned patient data (no manipulation of 3D model) in Col. 16, line 65 – Col. 17, line12 as follows:

> *The database(s) 10H can also contain healthcare and/or medical video, image, and/or audio, data and/or information, such as, for example, x-rays, Magnetic Resonant Images (MRI), CAT scans, digital x-ray files, digital Magnetic Resonant Imaging (MRI) files, digital CAT scan files, and/or any other video, imaging, and/or audio, healthcare data and/or*

information which can be utilized by healthcare providers, payers, intermediaries, patients, and/or other users of the present invention. In this manner, the present invention can facilitate the availability of any of the above-described video, image, and/or audio, data and/or information in a network environment. For example, a medical specialist can have access to, and/or review, an MRI or a CAT scan for a patient, from any location and at any time.

Hence, Jao cannot anticipate claim 1 which has been limited by the present amendment to networks which receive and manipulate a three-dimensional (3D) computer model of one patient's teeth. The dependent claims are allowable because they depend from an allowable claim. Withdrawal of the Section 102 Rejection is requested.

The Section 103 Rejection

Claims 2-24 were rejected under Section 103(a) as unpatentable over Jao in view of Andreiko et al. (USPN 5,683,243). Andreiko teaches computers for automatically designing and manufacturing a custom orthodontic appliance from anatomical shape data preferably of the lower jaw and teeth of a patient includes a scanner to produce images in three dimensions, a computer that constructs archforms and calculates finish tooth positions, then automatically designs an appliance, preferably including archwires and brackets, to move the teeth to the calculated positions and jigs to place the brackets on the teeth of the patient, and program controlled machines for making the brackets, wires and jigs to the appliance design driven by commands derived from digitized tooth and jaw shape data. However, Andreiko is absolute silent about using manipulable three-dimensional (3D) computer model of a patient's teeth for any purpose, much less allowing for transmission of manipulable models over a network that treating professionals can manipulate.

Andreiko shows that doctors work with manual models and transmit the "model 20, the prescription for treatment 27, a record of information 17 identifying the doctor 14 and the patient 12, together with information 19 containing statistical and historic data of the patient 12, to an appliance design facility 13, at some remote location. At the appliance design facility 13, the information 16 is digitized and input into the

computer 30 for analysis." Thus, in Andreiko, the physical model is reviewed by the doctor to make a prescription and the model and the prescription is sent to the facility to be digitized and to make a treating device as follows:

> *(85) Patient Evaluation Operation*
>
> *Referring to the system diagram of FIG. 1 and the flow chart of FIG. 2, the orthodontic evaluation operation (85) is performed at a doctor's office 11. The operation (85) includes the procedures (90) of the examination of a patient 12, (91) the preparation of the model 20 of the patient's mouth and teeth, (92) the prescription by the orthodontist 14 of treatment, (93) and communication the appliance facility 13.*
>
> *The examination procedure (90) the patient 12, who requires orthodontic treatment, is examined by an orthodontist 14, who makes a diagnosis 15 of the condition of the patient and of the treatment, if any, needed. Based on the diagnosis 15, the orthodontist or doctor 14 assembles the information 16 that is necessary to implement the prescribed treatment.*
>
> *In assembling the information 16, the orthodontist 14 (91) prepares a model of the patient's mouth 18, usually a physical model 20 from a mold of the patient's mouth, in its initial condition at the time of the diagnosis 15. The model 20 includes the mandibular model 21 of the patient's lower jaw or mandible 22 and the maxillary model 23 of the patient's upper jaw or maxilla 24.*
>
> *Then, further based on the diagnosis 15, the orthodontist 14 (92) prescribes a particular treatment and generates a prescription 27 in a tangible record form.*
>
> *The orthodontist 14 then (93) communicates the information 16, for example, by transmitting the model 20, the prescription for treatment 27, a record of information 17 identifying the doctor 14 and the patient 12, together with information 19 containing statistical and historic data of the patient 12, to an appliance design facility 13, at some remote location. At the appliance design facility 13, the information 16 is digitized and input into the computer 30 for analysis.*
>
> *Alternatively, the orthodontist 14 may convert the information 16 to digital computer readable form and transmit the digitized information to the appliance design facility 13. In this alternative, the system 10 would*

be configured with the input computer 30 located at the orthodontist's office 11, and the orthodontist 14 or assisting personnel would perform portions of an data input procedure (94) described below.

Here, there is no showing that the orthodontist manipulates a digital 3D model of the patient's teeth. Hence, Andreiko neither anticipates nor renders the invention obvious. Withdrawal of the §103 rejection is respectfully requested.

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Attached is a marked-up version of the changes made by the current amendment. The attached page is captioned with "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

Bao Tran
Reg. No. 37,955

By:

James M. Heslin
Reg. No. 29,541

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, 8th Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
JMH:jke
PA 3271790 v1

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Amended) A virtual health-care electronic commerce community, comprising:

a network to communicate information comprising manipulable three-dimensional (3D) computer models of a patient's teeth relating to the community;

one or more patients coupled to the network;

one or more treating professionals coupled to the network to receive and manipulate the computer model of the patient's teeth; and

a server coupled to the network, the server storing data for each patient including 3D computer models of teeth and performing patient data visualization in response to a user request.

21. (Amended) A server to support a health-care electronic commerce community with one or more patients and one or more service providers, comprising:

a processor adapted to communicate with a network;

a data storage device coupled to the processor and adapted to store data including manipulable 3D dental model for each patient; and

software to communicate 3D patient data in response to a client request.

APPENDIX A
A COMPLETE SET OF PENDING CLAIMS

1. (Amended) A virtual health-care electronic commerce community, comprising:

a network to communicate information comprising manipulable three-dimensional (3D) computer models of a patient's teeth relating to the community;

one or more patients coupled to the network;

one or more treating professionals coupled to the network to receive and manipulate the computer model of the patient's teeth; and

a server coupled to the network, the server storing data for each patient including 3D computer models of teeth and performing patient data visualization in response to a user request.

2. (As filed) The community of claim 1, wherein the treating professional views one or more of the following patient data visualization over the network: a right buccal view; a left buccal view; a posterior view; an anterior view; a mandibular occlusal view; a maxillary occlusal view; an overjet view; a left distal molar view; a left lingual view; a lingual incisor view; a right lingual view; a right distal molar view; an upper jaw view; and a lower jaw view.

3. (As filed) The community of claim 1, wherein the treating professionals include dentists or orthodontists.

4. (As filed) The community of claim 1, further comprising one or more partners coupled to the network.

5. (As filed) The community of claim 4, wherein the partners include a financing partner.

6. (As filed) The community of claim 4, wherein the partners include a supplier.

7. (As filed) The community of claim 4, wherein the partners include a delivery company.

8. (As filed) The community of claim 1, wherein the treating professionals perform office management operations using the server.

9. (As filed) The community of claim 8, wherein the office management operations include one or more of the following: patient scheduling, patient accounting, and claim processing.

10. (As filed) The community of claim 1, wherein the patients and the treating professionals access the server using browsers.

11. (As filed) A computer-implemented method for performing dental-related electronic commerce, comprising:

transmitting teeth data associated a patient from a dental server to a treating professional computer over the Internet upon an authorized request;

displaying a three-dimensional computer model of the teeth at the treating professional computer using a browser;

allowing a treating professional to manipulate the three-dimensional computer model of the teeth using the browser;

transmitting the computer model from the treating professional computer to the server; and

generating an appliance to treat the patient based on the computer model of the teeth.

12. (As filed) The method of claim 11, further comprising providing financing options for the patient using one or more financing partners.

13. [14.] (As filed) The method of claim 11, further comprising offering an on-line shop geared to the patient's dental requirements.

14. [15.] (As filed) The method of claim 11, further comprising providing office management utilities for the treating professional.

15. [16.] (As filed) The method of claim 14, wherein the office management utilities include one or more of the following: patient scheduling, patient accounting, and claim processing.

16. [17.] (As filed) The method of claim 11, wherein allowing a treating professional to manipulate the three-dimensional computer model of the teeth using the browser further comprises displaying a plurality of dental views.

17. (As filed) The method of claim 16, wherein the dental views include one or more of the following: a right buccal view; a left buccal view; a posterior view; an anterior view; a mandibular occlusal view; a maxillary occlusal view; an overjet view; a left distal molar view; a left lingual view; a lingual incisor view; a right lingual view; a right distal molar view; an upper jaw view; and a lower jaw view.

18. (As filed) The method of claim 11, wherein allowing a treating professional to manipulate the three-dimensional computer model of the teeth using the browser further comprises clicking on a tooth to adjust its position.

19. (As filed) The method of claim 18, further comprising displaying x, y and z axis to allow the treating professional to adjust the position of the tooth.

20. (As filed) The method of claim 11, further comprising providing supplemental services to the patient, including teeth whitening services.

21. (Amended) A server to support a health-care electronic commerce community with one or more patients and one or more service providers, comprising:

a processor adapted to communicate with a network;

a data storage device coupled to the processor and adapted to store data including manipulable 3D dental model for each patient; and

software to communicate 3D patient data in response to a client request.

22. (As filed) The server of claim 21, further comprising a browser adapted to receive the client request and transmitting the request to the server.

23. (As filed) The server of claim 22, wherein the browser further comprises a viewer plug-in to visualize patient data in 3D.

24. (As filed) The server of claim 21, wherein the providers service one or more of the following health-care applications: dentistry applications, cosmetic augmentation, hair-care enhancements, liposuction, plastic or reconstructive surgery.